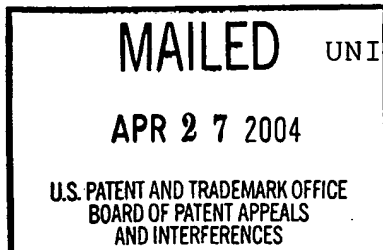


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 67



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HARALD WERENICZ, THOMAS WITTKOPF,
GERHARD VOSS, PETER REMMERS, MARK G. KATSAROS
and ROBERT G. POLANCE II

Appeal No. 2004-0135
Application No. 09/057,406

ON BRIEF

Before KIMLIN, OWENS and KRATZ, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 2-12,
33-36, 38-42, 44 and 46-56. Claim 10 is illustrative:

10. A method of forming a continuous film layer of a thermoplastic composition onto a substrate, said method comprising the steps of:
 - a) providing a molten thermoplastic composition;
 - b) advancing a substrate along a path;

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- c) dispensing a continuous film of said thermoplastic composition from a coating device at a coating temperature wherein the thermoplastic composition has a complex viscosity of less than about 500 poise at about 1000 radians/seconds at the coating temperature and a complex viscosity ranging from about 100 poise to about 1,000 poise at about 1 radian/second at the coating temperature;
- d) suspending said film between said coating device and said substrate; and
- e) contacting said film with said advancing substrate wherein the thermoplastic composition is released from the coating device at a temperature of less than about 160°C.

The examiner relies upon the following references as evidence of obviousness:

Smith et al. (Smith)	3,402,086	Sep. 17, 1968
Waggoner	3,904,806	Sep. 09, 1975
Buell	4,147,580	Apr. 03, 1979
Maletsky et al. (Maletsky)	4,939,202	Jul. 03, 1990
Boger et al. (Boger)	5,409,733	Apr. 25, 1995
Sanftleben et al. (Sanftleben)	5,510,138	Apr. 23, 1996
du Pont de Nemours (UK '637) (United Kingdom patent specification)	688,637	Mar. 11, 1953
Claassen (EP '013) (European patent application)	315,013	May 10, 1989

Appellants' claimed invention is directed to a method of forming a continuous film layer of a thermoplastic composition onto a substrate. The method entails dispensing a continuous film of a thermoplastic composition having the recited complex

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viscosity such that the film is suspended between the coating device and the advancing substrate. Implicit in the coating method is the lack of contact between the coating device and the substrate being coated.

The appealed claims stand rejected under 35 U.S.C. § 103 as follows:

(a) claims 2-12, 33-36, 38-42, 44 and 46-56 over EP '013 in view of Maletsky and Smith, further in view of Buell;

(b) claims 3 and 4 over the stated combination of references further in view of Waggoner or UK '637; and

(c) claims 3-6, 8, 10-12, 33, 35, 36, 39-42, 44 and 46-48 over Sanftleben in view of Boger.

In accordance with the grouping of claims set forth at page 3 of appellants' principal brief, claims 2-12, 33-36, 38-42, 44, 46-54 and 56 stand or fall together. Claim 55 on appeal forms a separate second group.

We have thoroughly reviewed each of appellants' arguments for patentability. However, we are in complete agreement with the examiner's reasoned analysis and application of the prior art, as well as his cogent disposition of the arguments raised by appellants. Accordingly, in sustaining the rejections of record,

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we adopt the examiner's reasoning as our own and add the following for emphasis only.

Concerning the examiner's rejection over EP '013 in view of Maletsky, Smith and Buell, a principal argument of appellants is that although EP '013 discloses the application of a thermoplastic polymer with a surface nozzle, the reference "does not teach dispensing a continuous film of the thermoplastic composition from a coating device or suspending a continuous film between a coating device and a substrate" (page 10 of principal brief, second paragraph). However, while neither EP '013 nor Maletsky expressly teaches suspending the coated film between the coating device and the substrate, we concur with the examiner that Smith evidences the obviousness of doing so. As explained by the examiner, Smith clearly discloses and depicts the application of a molten, thermoplastic composition on a fabric substrate through a slit-die wherein the molten film is suspended between the coating device and the substrate. Accordingly, we find no error in the examiner's reasoning that it would have been obvious for one of ordinary skill in the art to employ the slit-die application process of Smith for coating similar thermoplastic compositions on a substrate. Indeed, Smith discloses that such hot-melt extrusion processes utilizing a

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slit-die were well known in the art for coating thermoplastic compositions (see column 1, lines 26 et seq.). While appellants contend that there is no teaching in Smith that the slit-die coating process is applicable to all thermoplastic compositions, such a teaching is not necessary for a finding of obviousness under § 103. In our view, Smith provides a general teaching that it was known in the art to use a slit-die process for applying molten thermoplastic compositions, and appellants have apprised us of no reason why one of ordinary skill in the art would have been dissuaded from utilizing the slit-die process for applying the thermoplastic composition of EP '013.

As for the claimed complex viscosity of the thermoplastic composition, appellants have not disputed the examiner's factual determination that the thermoplastic compositions of Maletsky, particularly VESTOPLAST, which is also used by appellants, would necessarily have the claimed complex viscosity. Both EP '013 and Maletsky are directed to providing liquid-impermeable thermoplastic coatings on diapers, and appellants have not refuted the obviousness of utilizing the thermoplastic compositions of Maletsky in the process of EP '013. Also, since EP '013, Maletsky and appellants all disclose the use of amorphous polyolefins as the thermoplastic compositions, it is

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reasonable to conclude that the amorphous polyolefins of EP '013 possess the claimed complex viscosity. Appellants have not demonstrated otherwise.

Turning to the § 103 rejection of Sanftleben in view of Boger, we concur with the examiner that it would have been obvious for one of ordinary skill in the art to employ the coating technique of Boger in the process of Sanftleben. Where Sanftleben is silent regarding whether the application of the hot melt adhesive with a hand held applicator results in suspending the film between the coating device and the substrate, Boger establishes that appellants' claimed method for applying a thermoplastic composition was well known in the art. Boger discloses that "[a]dvantages of the slit die method include the provision of wide coating films, relative to the spraying method, and the possibility of automation suitable for mass production" (column 2, lines 55-58). While appellants emphasize the disadvantages of the slit-die method taught by Boger, appellants have not established that the claimed method also does not experience some of the same disadvantages.

Appellants also maintain that neither Sanftleben nor Boger teaches thermoplastic compositions having the claimed complex viscosity. However, as properly noted by the examiner, although

Sanftleben teaches a preference for viscosities outside the claimed range, the reference also teaches that "viscosities up to 100 poise may be acceptable depending upon the application method, the desired coating thickness and the surface area to be covered" (page 23 of Answer, lines 6-8). We also concur with the examiner's reasoning that "one applying the same coating thicknesses as appellant utilizing the coating techniques which included a slit nozzle (see Boger for this coating technique) would have recognized that the viscosity would have been a variable which would have been optimized in order to attain the desired coating thickness" (page 23 of Answer, lines 13-16). We further agree with the examiner that one of ordinary skill in the art, desiring to attain the pin-hole free coating of EP '013, would have found it obvious to employ routine experimentation to determine the optimum viscosity for the thermoplastic composition being coated. We also note that Sanftleben, like appellants, discloses the use of amorphous polyolefins as the thermoplastic composition.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the examiner.

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In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Edward C. Kimlin
EDWARD C. KIMLIN
Administrative Patent Judge

Terry J. Owens
TERRY J. OWENS
Administrative Patent Judge

BOARD OF PATENT
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PETER F. KRATZ
Administrative Patent Judge

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